

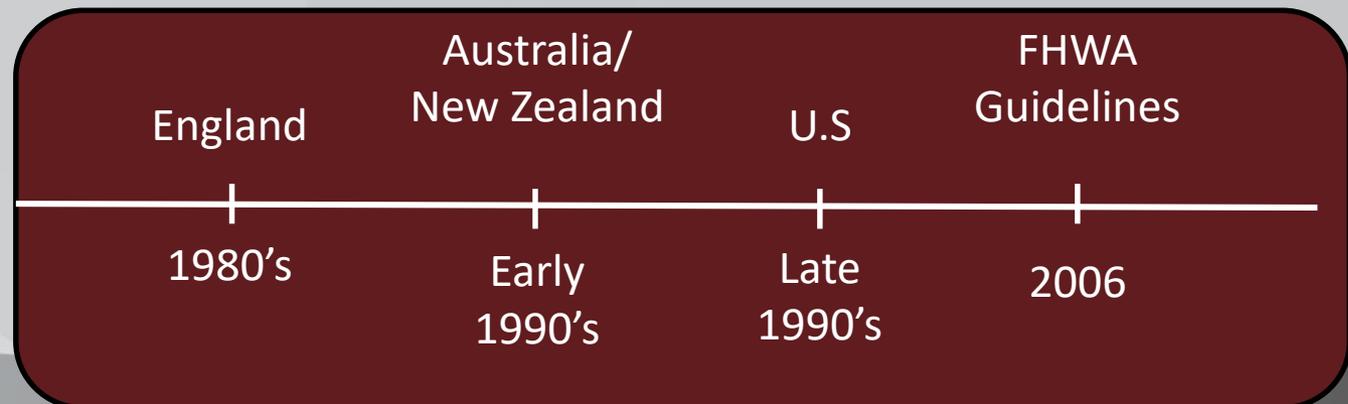
Road Safety Audits/Assessments and Development of Iowa Guidelines

SHSP update

March 20, 2018

Road Safety Assessments

- Formal and independent safety assessment of road int./segment/project
 - Experienced team of specialists
 - Addresses safety of all users
- Perform at any roadway stage from planning/design to maintenance
- History



Iowa Guideline Project

- Iowa had no formal guidelines/process for RSAs
- Research conducted to review state-of-practice and develop guidelines
- Project approach:
 - Literature review
 - Review of state processes
 - Development of guidelines



Project Tasks

- Literature review of national and state documentation on RSAs
- Review of state RSA processes
 - Virginia
 - South Dakota
 - Nevada
 - Ohio
- Develop suggested Iowa RSA process
- Conclusions and Recommendations

Literature Review

- Clear difference between RSA processes/ steps before and after 2006 FHWA guidelines
 - Pre-2006 – Ten Step Process
 - Post-2006 – Eight Step Process
- State processes identified generally followed FHWA guidelines
- Limited RSA software available to streamline the process

State Processes

- Four state approaches reviewed (Virginia, South Dakota, Nevada, Ohio)
- Largely follow FHWA guidelines, minor differences
 - VA and NV Present findings to owner, SD and OH do not
 - Led by DOT in VA and NV, by LTAP in SD and OH
- Four to six team members, multidisciplinary

Iowa RSA Process

1) Project
Identification

2) Assemble RSA
Team

3) Compile
Background Data

4) Pre Assessment
Meeting

5) Field Review

Post Assessment
Meeting

6) Develop
Memorandum

Draft Report
Meeting

7) Memorandum
Delivery

8) Incorporate
Suggestions

RSA Benefits

- Proactively address safety
- Incorporate suggestions into projects when appropriate
- Consider all users
- Multidisciplinary interactions and relationships



Conclusion

- Eight-step approach should be employed by any agency performing RSAs in Iowa
- Process is flexible, approach can evolve as needed in the future
- Report and guidelines are available at:

[http://www.intrans.iastate.edu/research/documents/research-reports/iowa RSA guidelines w cvr.pdf](http://www.intrans.iastate.edu/research/documents/research-reports/iowa_RSA_guidelines_w_cvr.pdf)

Development of Iowa Road Safety Assessment (RSA) Guidelines

February 2018



IOWA STATE UNIVERSITY
Institute for Transportation

Sponsored by
Iowa Department of Transportation
(InTrans Project 15-556)

Iowa SHSP Crash Data And Emphasis Area Ranking



Timeline

2017 2018
Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Sep | Aug | Sep | Oct | Nov | Dec

Data Analysis

SEA Prioritization

Strategy Development

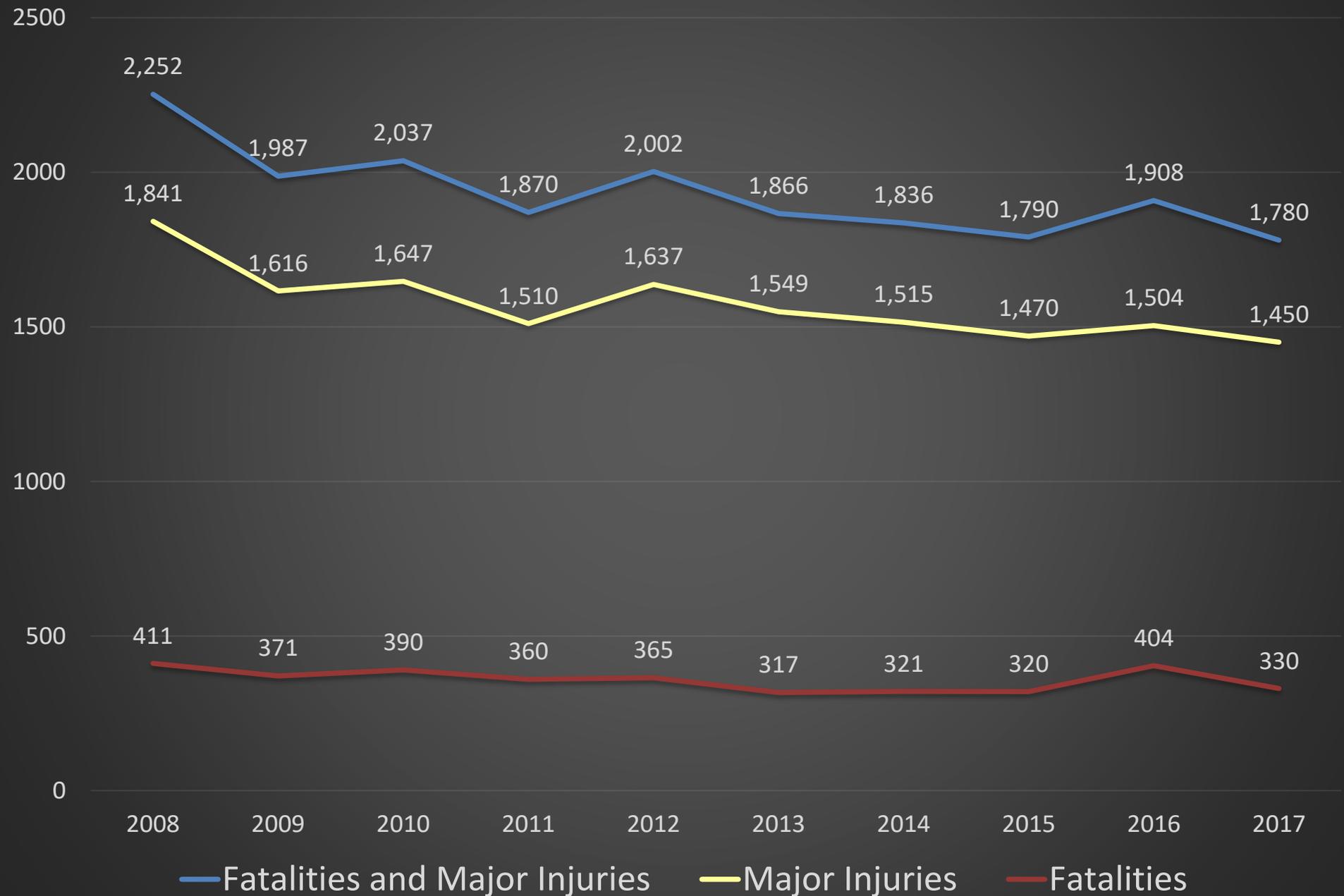
Draft Development

Implementation Team Meetings

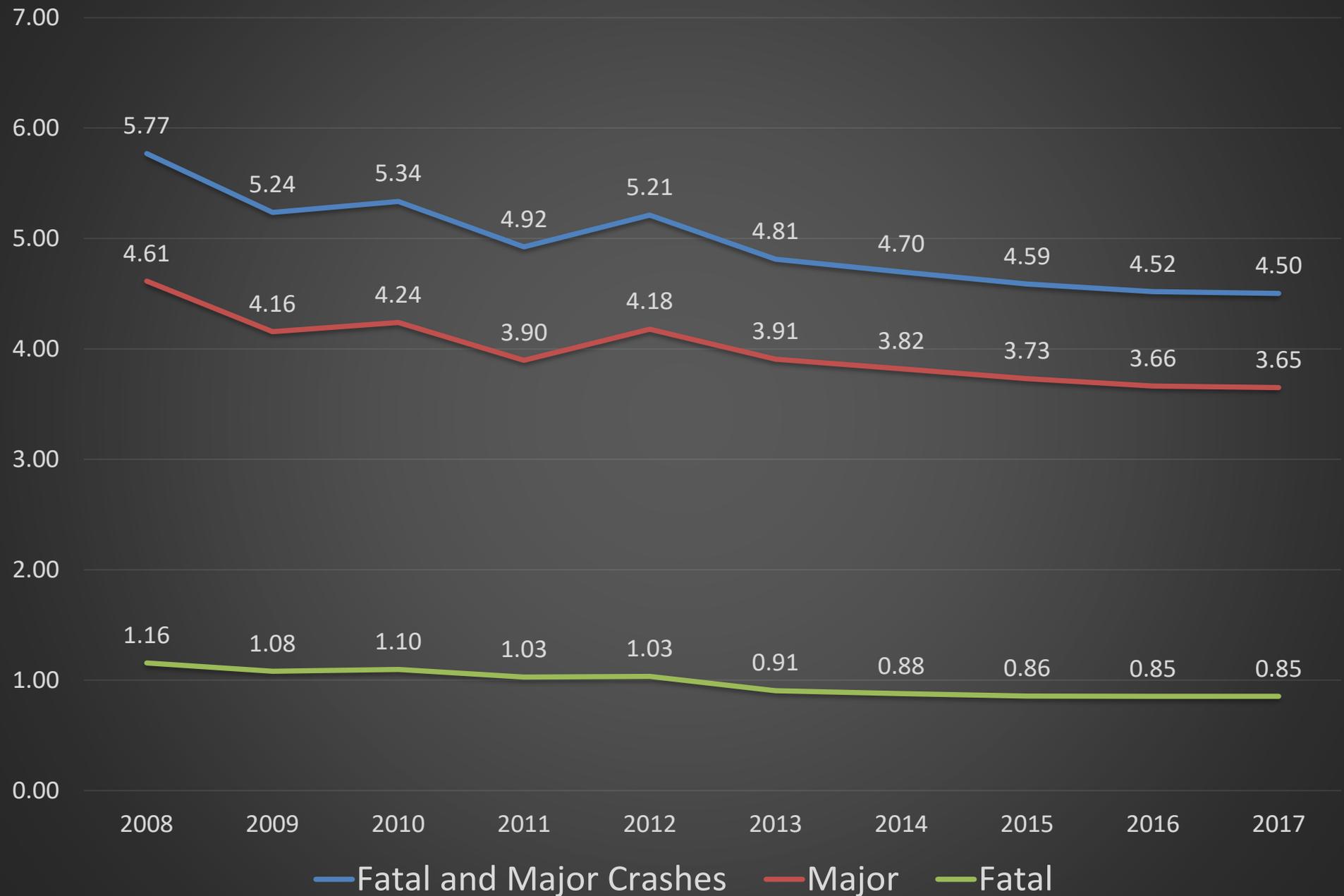
SHSP Completion



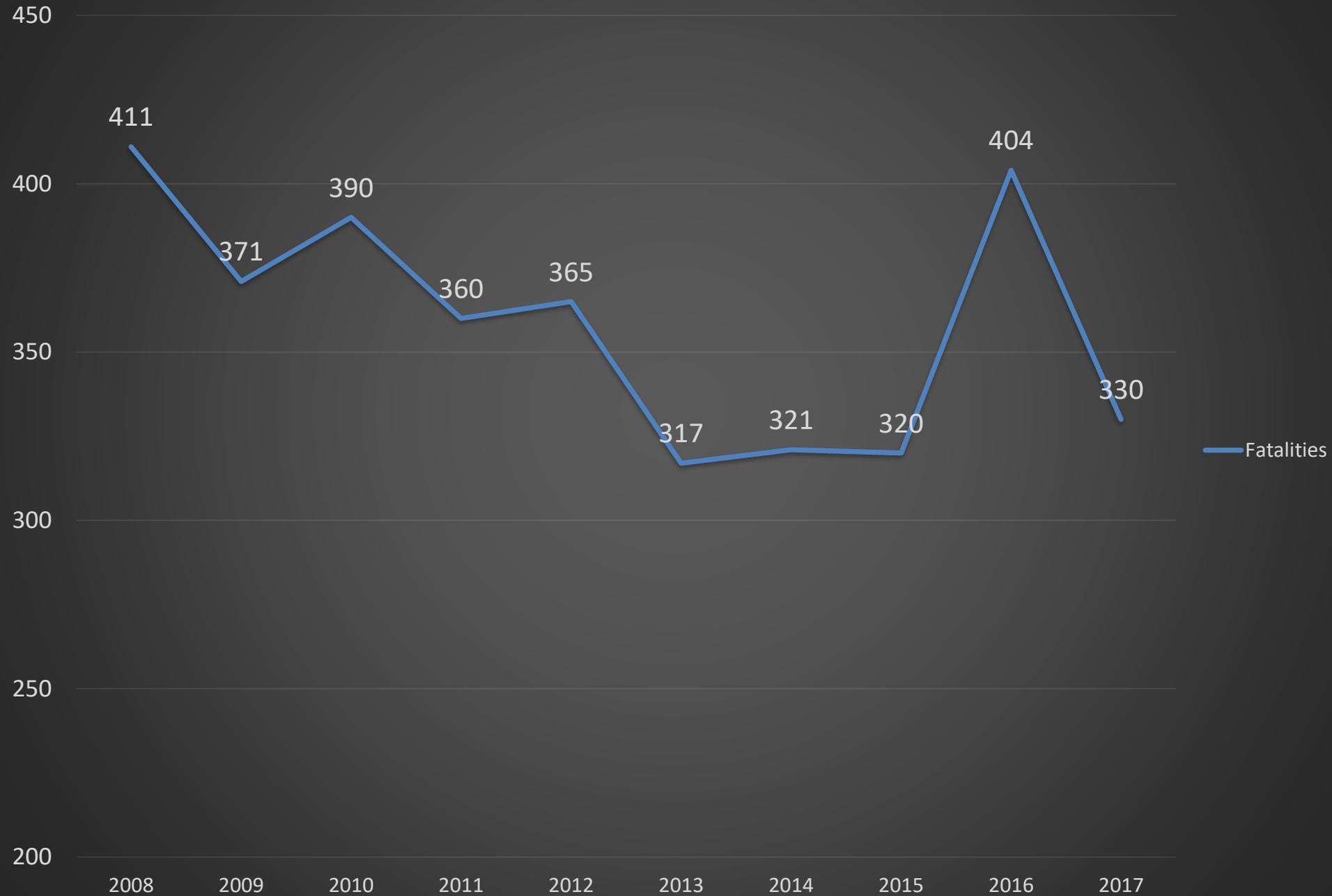
Severe Injuries: 2008-2017



Iowa Severe Injury Crash Rates: 2008-2017



Total Fatalities: 2008-2017



Emphasis Areas	Fatal Crashes	Major Crashes	Severe*	Fatalities	Major Injuries	Severe*	Severe Injury Rank	% of Severe Injuries
Lane Departures	986	3,142	4,128	1,109	3,997	5,106	1	56%
Local Roads	767	3,411	4,178	831	3,979	4,810	2	52%
Speed-related	782	3,136	3,918	874	3,803	4,677	3	51%
Roadside Collisions	633	2,269	2,902	690	2,717	3,407	4	37%
Unprotected Persons	731	1,698	2,429	822	2,252	3,074	5	34%
Younger Drivers	422	2,039	2,461	488	2,575	3,063	6	33%
Intersections	351	1,910	2,261	401	2,307	2,708	7	30%
Impaired Driving	488	1,078	1,566	555	1,396	1,951	8	21%
Older Drivers	348	1,012	1,360	385	1,309	1,694	9	18%
Motorcycles	229	1,116	1,345	242	1,239	1,481	10	16%
Distracted Driving	153	852	1,005	168	1,039	1,207	11	13%
Heavy Trucks	275	611	886	313	760	1,073	12	12%
Winter Road Conditions	94	477	571	115	606	721	13	8%
Pedestrians	111	366	477	111	381	492	14	5%
Pedalcyclists	24	181	205	24	190	214	15	2%
Other Special Vehicles	40	101	141	43	134	177	16	2%
Work Zones	35	86	121	37	115	152	17	2%
Train	12	22	34	15	27	42	18	0%
Totals	1,502	6,173	7,675	1,678	7,488	9,166		

Emphasis Areas	Severe Injury Rank 2013-2017	Severe Injury Rank 2010-2014	Rank Difference
Lane Departures	1	1	0
Local Roads	2	2	0
Speed-related	3	3	0
Roadside Collisions	4	6	2
Unprotected Persons	5	4	-1
Younger Drivers	6	5	-1
Intersections	7	7	0
Impaired Driving	8	8	0
Older Drivers	9	9	0
Motorcycles	10	10	0
Distracted Driving	11	14	3
Heavy Trucks	12	11	-1
Winter Road Conditions	13	12	-1
Pedestrians	14	13	-1
Pedalcyclists	15	15	0
Other Vehicles	16	16	0
Work Zones	17	17	0
Train	18	18	0

Stakeholder Input

- Internal External Stakeholder Input gathering to be supported by Snyder & Associates
 - Internal and External
- Pairwise Comparison Poll
 - Safety Emphasis Areas
- Static poll distribution to MPO & RPA
 - 2 separate URLs
 - Staff
 - Policy Boards

Strategic Highway Safety Plan Safety Emphasis Area Comparison Poll



IOWA DOT
SMARTER | SIMPLER | CUSTOMER DRIVEN | www.iowadot.gov

Office of Systems Planning
800 Lincoln Way | Ames, IA 50010
Phone: 515-239-1788 | Email: Samuel.Sturtz@iowadot.us

Dear Safety Stakeholder,

The Iowa DOT is in the process of updating its Strategic Highway Safety Plan (SHSP) for 2019-2023. The plan establishes a comprehensive framework for reducing fatal and serious injury crashes on all public roads. The purpose of the SHSP is to identify effective strategies to address areas of greatest need in order to make Iowa's roadways safer.

As part of this effort, the SHSP Implementation Team is seeking input from stakeholders and interested groups regarding which Safety Emphasis Areas should be prioritized. Safety Emphasis Areas such as speeding, local roads, and lane departures will always be an area of significant emphasis for highway safety officials in Iowa; however, there are still many safety areas deserving of attention. In order to prioritize resources for these other Safety Emphasis Areas, the SHSP Implementation Team is requesting your input as a traffic safety stakeholder. A link to an online poll is included below.

<https://PollEV.com/surveys/tdOoqTzll/web>

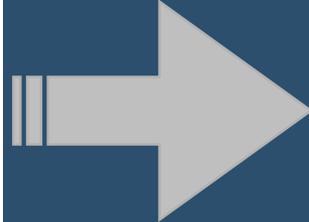
The poll contains 45 questions that compare the ten identified Safety Emphasis Areas to one another. For each question, you will be asked to choose between two Safety Emphasis Areas, selecting the one you believe the SHSP Implementation team should prioritize when developing strategies and goals. The final questions will ask you to identify which category best describes your job, and what type of government agency or private entity you work in.

The polling software assigns a random number to your answers for analysis purposes. Your identity and answers will remain anonymous*. You may exit the poll at any time. (*If you choose to provide your email to receive the results of the poll after it closes, it will be tied to your assigned number, but your email and answers will remain confidential).

We appreciate your assistance with our efforts to improve highway safety throughout the state.

 **SAMUEL STURTZ**
TRANSPORTATION PLANNER
OFFICE OF SYSTEMS PLANNING

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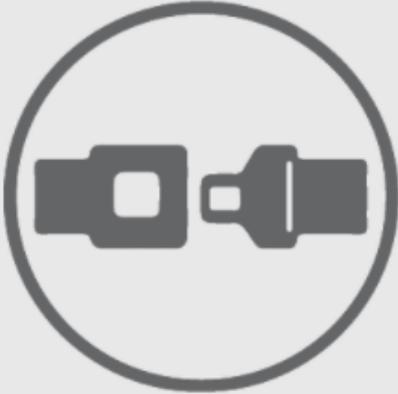
**Iowa
DOT**
Strategic Highway Safety Plan
2019

50 Questions

[Start Survey](#)

2. UNPROTECTED PERSONS or YOUNGER DRIVERS

0



0



Typical Pair
Comparison Question

45 Pairs
~4 minutes

41. In which category does your profession fall? Education, EMS, Law Enforcement, Engineering, Other

0



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Collect Basic
Information about the
Participants' Profession

Questions?

